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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 097006.999 | 01/14/98 | SHIFF | PMS241460 |

MM41/0402

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| EXAMINER |
|----------|
| TRAN, T |

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2856 | |

DATE MAILED: 04/02/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/006,999

Applicant(s)

Shiff et al.

Examiner

Thuy Vinh Tran

Group Art Unit

2856

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on Amendment 01/19/99.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-9 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 3-4, 6-8 is/are rejected.
- ☒ Claim(s) 2, 5, 9 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Art Unit: 2856

Title: **Apparatus for the separation of cystic parasite forms from water**

Inventors: **Shiff et al.**

Detailed action:

I. Rejections under 35 U.S.C. 102(b)

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action :

A person shall be entitled to a patent unless--

2. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Leu (U.S. Patent No. 5,866,071).

As to claim 1, regarding a centrifuge tube of particulate material [45] see figures 4a, 4b, 4c; column 2, lines 62-65; column 3, lines 4-9, 27-40.

I. Rejections under 35 U.S.C.103(a)

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained through the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negative by the manner in which the invention was made.

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2. Claims 3-4, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borchardt et al. (U.S. Patent No. 5,846,439) in view of Leu (U.S. Patent No. 5,866,071).

As to claims 3, 6-8, Borchardt et al. discloses a method of concentrating oocysts of waterborne parasites including *Cryptosporidium* from water which comprises a continuous flow centrifuge except for a filtration column of particulate material (see column 3, lines 64-65; column 5, lines 16-18; column 6, lines 1-2). Leu teaches a centrifuge tube wherein some media are put for separation of biological substances (see column 3, lines 4-8 and 27-39; figures 4a, 4b, 4c). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the centrifuge system of Borchardt et al. by adapting a tube column for separating or filtering biological materials as evident by the teachings of Leu since the existence of the filtering media inside the tube helps to filter organisms out with good result.

As to claim 4, neither Borchardt et al. nor Leu teaches the use of sand for filtering particulate material in the fluid. However, it is a well known practice in the art that sand is very commonly used in the field of water purification. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize sand as the medium inside the filtering tube of Leu which is adapted to the centrifuge system of Borchardt et al. for efficiently filtering micro-organisms out.

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III. Objections


Claims 2, 5, 9 are objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

IV. Remarks and conclusion


1. Applicant's arguments filed on January 19th, 1999 have been fully considered but they are moot in view of the new grounds of rejection.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Vinh Tran whose telephone number is (703) 305-0012. The examiner can normally be reached on Mondays through Fridays from 8:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron Williams, can be reached at (703) 305-4705. The fax phone number for this Group is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

Tran/ab 

March 28th, 1999


Hezron Williams
Supervisory Patent Examiner
Technology Center 2800